

OCEAN GALES AND STORMS, JUNE, 1927

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN													
Balsam, Am. S. S.	Liverpool	Boston	52 15N.	38 30W.	June 3.	4a, 3d.	June 4.	29.54	S.	SW., 7.	W.	W., 8.	S-SW.
New York, Ger. S. S.	New York	Hamburg	43 19N.	41 10W.	5.	Mdt. 5th.	6.	29.94	NNE.	NE., 9.	NW.	NW., 9.	NE-NNE.
Julius Schindler, Ger. S. S.	Houston, Tex.	Ghent	38 54N.	55 33W.	5.	Noon, 6th.	6.	29.87	SE.	S., 7.	SW.	SE., 9.	S-SW.
Coeur d'Alene, Am. S. S.	Casa Blanca.	New York	36 00N.	35 01W.	6.	4p, 8th.	8.	29.97	S.	S., 8.	N.	—9.	W-NW-N.
Ossa, Am. S. S.	Alexandria.	Boston	40 22N.	24 53W.	12.	8a, 12th.	12.	29.82	W.	W., 8.	WNW.	W., 8.	WSW-W.
Modoc, U. S. S.	On ice patrol.		45 30N.	41 30W.	14.	9p, 14th.	16.	29.48	WSW.	W., 9.	NNE.	W., 9.	WSW-W.
Persephone, Danzig S. S.	Rotterdam	New York	44 00N.	39 00W.	15.	6a, 15th.	17.	29.62	W.	W., 6.	NW.	WSW., 9.	W-WSW.
Hardenberg, Du. S. S.	Montreal	Rotterdam	51 12N.	26 07W.	15.	Noon, 15th.	15.	28.86	SSE.	SW., 9.	SW.	SW., 10.	SSE-SW.
San Nazario, Br. S. S.	Curacao	Southampton	41 28N.	28 35W.	15.	Noon, 16th.	17.	29.81	SW.	W., 7.	WNW.	WNW., 8.	SW-WNW.
Oscar II, Dan. S. S.	New York	Christiansand	56 30N.	18 10W.	16.	10p, 16th.	17.	28.89	WSW.	S., 8.	S.	—8.	W-SW-SSE.
Coelada, Am. S. S.	Belfast	New York	54 44N.	14 05W.	17.	2p, 17th.	19.	29.40	SW.	SW., 8.	W.	—8.	SW-W.
Kerbonkson, Am. S. S.	Dublin	Baltimore	48 46N.	26 40W.	19.	4p, 19th.	19.	29.72	NNE.	NNE., 8.	N.	N., 9.	NNE-N.
Ossa, Am. S. S.	Alexandria	Boston	42 37N.	67 24W.	20.	8p, 20th.	21.	29.80	E.	NE., 8.	NE.	NE., 8.	SW-WNW.
Bannack, Am. S. S.	Liverpool	do.	51 16N.	13 53W.	20.	Noon, 20th.	21.	29.74	SW.	SW., 8.	WNW.	SW., 8.	ESE-NNE.
Innok, Am. S. S.	Rotterdam	New York	41 16N.	66 23W.	20.	2a, 21st.	21.	29.66	SE.	NE., 7.	W.	—8.	Steady.
Clontarf, Am. S. S.	New York	Malta	38 42N.	19 23W.	21.	8p, 21st.	23.	30.15	NE.	NE., 7.	NE.	NE., 8.	Steady.
West Nosska, Am. S. S.	Liverpool	Boston	49 45N.	3 45W.	25.	8p, 25th.	26.	29.45	W.	W., 8.	NW.	W., 8.	Steady.
West Madaket, Am. S. S.	English Channel.	Galveston	49 45N.	3 45W.	25.	4a, 26th.	27.	29.66	WSW.	NW., 8.	NNW.	NW., 8.	WSW-NW
Galtymore, Br. S. S.	Liverpool	Boston	53 29N.	29 28W.	29.	3a, 29th.	30.	29.92	NNW.	NNW., 10.	NW.	NNW., 10.	Steady.
Motocarlina, Belg. S. S.	New York	Antwerp	40 32N.	53 50W.	29.	10a, 29th.	30.	30.08	SE.	S., 8.	SE.	SE., 8.	Steady.
Notre Dame de Fourviere, Fr. S. S.	Curacao	Havre	47 50N.	16 40W.	28.	4a, 30th.	30.	29.68	NNE.	NW., 6.	NW.	NNW., 8.	Steady.
NORTH PACIFIC OCEAN													
China Arrow, Am. S. S.	Hong Kong	San Pedro	33 48N.	137 19E.	3.	4p, 5th.	5.	29.44	E.	NNE., 8.	NNE.	NE., 9.	None.
City of Vancouver, Br. S. S.	Nagoya	Grays Harbor.	48 51N.	163 30W.	7.	—8th.	9.	28.49	E.	SSE., 4.	SW.	E., 10.	None.
China Arrow, Am. S. S.	Hong Kong	San Pedro	47 00N.	161 10W.	15.	9a, 16th.	16.	29.63	SE.	SSW., 7.	W.	S., 8.	Do.
West Ison, Am. S. S.	Tsingtau	Seattle	49 37N.	140 08W.	24.	—24th.	24.	29.80	NW.	NW., 7.	NW.	NW., 8.	Do.
Oakridge, Am. S. S.	Westport	Fushiki	51 33N.	172 31W.	23.	2p, 25th.	26.	29.26	SE.	W., 7.	WNW.	WSW., 9.	Do.
West Elcajon, Am. S. S.	Otari	San Francisco	38 40N.	124 50W.	28.	Mdt., 29th.	29.	29.90	NW.	NNW., 8.	NNW.	NNW., 8.	NW-NNW.
Tsuyama Maru, Jap. S. S.	San Francisco	Balboa	17 20N.	102 18W.	28.	5a, 28th.	29.	29.78	SE.	E., 8.	E.	E., 8.	3 points.
Lio, Am. M. S.	San Pedro	do.	17 20N.	101 48W.	28.	5a, 28th.	29.	29.94	SE.	SE., 9.	E.	SE., 9.	SE-ESE.
Sonoma, Am. S. S.	Sydney	San Francisco	36 57N.	126 18W.	29.	—, 30th.	30.	30.10	ENE.	N., 8.	NNE.	NNE., 9.	4 points.
Yankee Arrow, Am. S. S.	San Pedro	Balboa	18 30N.	104 10W.	30.	—, 30th.	July 1.	29.83	E.	SE., 8.	SE.	SE., 8.	E-SE-S.
SOUTH PACIFIC OCEAN													
Scapas, Du. T. S.	San Pedro	Sydney	31 15S.	157 32E.	4.	9a, 5th.	June 5.	28.81	NE.	S., 11.	SW.	S., 11.	NNW-W.
Inverarder, Br. T. S.	Bahia Blanca	San Pedro	43 45S.	81 20W.	6.	6p, 6th.	8.	29.23	N.	N., 10.	SW.	N., 10.	NNW-W.
SOUTH ATLANTIC OCEAN													
Oregon, Dan. M. S.	Rotterdam	Buenos Aires.	28 08S.	46 34W.	4.	8p, 4th.	5.	29.94	S.	S., 8.	SSE.	S., 8.	S-SSE.
Arundo, Du. S. S.	Mobile	do.	34 36S.	53 04W.	6.	5p, 7th.	7.	29.87	ENE.	WNW., 8.	WNW.	WNW., 8.	ENE-WNW.
Alchiba, Du. S. S.	Rotterdam	do.	33 42S.	52 18W.	10.	10a, 11th.	12.	29.26	NE.	NW., 7.	SW.	SE., 11.	NW-SE-S.
INDIAN OCEAN													
Kendal Castle, Br. S. S.	Colombo	Suez	11 33N.	53 10E.	2.	3a, 3d.	3.	29.71	SW.	SSW., 8.	SSW.	SSW., 9.	SW-SSW.
Ensley City, Am. S. S.	Port Lincoln.	Aden	9 04N.	51 55E.	8.	2a, 8th.	8.	29.58	SW.	SW., 7.	W.	SW., 9.	None.
Dundrum Castle, Br. S. S.	Algoa Bay	New York	30 44S.	30 30E.	14.	4p, 14.	15.	29.87	SW.	WSW., 8.	W.	WSW., 8.	SW-WSW

NORTH PACIFIC OCEAN

By WILLIS E. HURD

The one important phase of the meteorological conditions on the North Pacific Ocean for June, 1927, was the extraordinary vitality and depth for the season of the Aleutian Low. Ordinarily the low has largely disintegrated by this time of year, but now it persisted until near the end of June, the average pressures at Dutch Harbor and St. Paul, 29.60 and 29.64 inches, respectively, being the lowest of the month in recent years, and near the lowest normal readings for the time of strongest development of the low in November and December.

The North Pacific anticyclone lay over the middle-eastern part of the ocean practically throughout the month, with little change from the normal in position, its center being near 35° N., 145° W. Its average pressure for the month was slightly below normal; hence for the whole eastern part of the ocean north of the 30th parallel abnormally low pressures prevailed.

The following table is illustrative of the barometric conditions at several island and coast stations in west longitudes:

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level at indicated hours, North Pacific Ocean, June, 1927

Stations	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Inches	Inch	Inches		Inches	
Dutch Harbor ¹	29.60	-0.39	30.14	28th	29.00	8th.
St. Paul ¹	29.64	-0.25	30.04	28th	29.26	25th.
Kodiak ¹	29.79	-0.15	30.26	30th	29.50	21st.
Midway Island ¹	30.10	+0.03	30.20	16th	29.86	26th.
Honolulu ⁴	30.04	0.00	30.12	15th	29.90	20th.
Juneau ⁴	29.97	-0.04	30.26	30th	29.63	25th.
Tatoosh Island ⁴	30.04	-0.01	30.39	27th	29.69	25th.
San Francisco ⁴	29.93	-0.03	30.13	27th	29.73	15th.
San Diego ⁴	29.91	+0.02	30.06	5th	29.74	25th.

¹ P. m. observations only.² For 29 days.³ For 27 days.⁴ A. m. and p. m. observations.⁵ Corrected to 24-hour mean.

Notwithstanding the activity of the Aleutian low, June was for the most part a very quiet month. Along the upper sailing routes gales were infrequent and rarely of forces exceeding 8 or 9. The highest wind velocity experienced in these latitudes at sea was an easterly gale of force 10 which occurred on the 8th near 49° N., 163°

W. On the coast it was exceeded at the Weather Bureau station at Tatoosh Island, Wash., when a 69-mile south wind (force 11) was recorded on the 25th.

In the Far East a typhoon, which originated in May, moved northward, then northeastward from Taiwan early in the month, and died out at sea east of Japan on the 6th. The gale report of the American steamer *China Arrow* has to do with the typhoon as it lay off the south coast of Japan on the 5th. A more detailed account of the storm will be found in the article immediately following this in the REVIEW. During the remainder of the month only a few unimportant depressions occurred over this part of the Pacific.

In the American Tropics east and southeast gales of force 8 to 9 were encountered by steamers off the Mexican coast between Acapulco and Manzanillo from the 28th to the 30th. It is believed, from a consideration of their direction, coupled with the fact of their progressive northward movement, although little depression of the barometer was observed, that a small cyclone may have been moving up the coast to seaward of the reporting vessels.

This June at Honolulu was the second driest and the third windiest on record. The average hourly velocity was 9.7 miles, but the maximum velocity was at the rate of only 28 miles an hour, from the northeast, on the 6th. The prevailing direction was east.

Fog was frequent and not far from normal in occurrence from southern California up the coast, and thence westward north of the 40th parallel to the Asiatic coast. Several vessels, sailing eastward from Japanese ports, encountered fog daily from time of departure until they were beyond midocean. The region from 40° to 50° N., lying between the western Aleutians and Japan, was one of three areas of maximum fog—over 50 per cent—shown on the current June chart. Of the other two, one lay over the eastern part of Bering Sea; the other off the California coast between San Diego and the 40th parallel. The American steamer *China Arrow*, reporting on fog observed at the northern entrance to Taiwan Channel on the 1st, said that although the sky was clear overhead, one "could not see a ship's length" ahead from the deck of the vessel.

NOTES

Attention is here called to two intense cyclonic storms of the Southern Hemisphere—not to mention others of a seemingly minor nature—which the accompanying gale reports show to have occurred:

South Pacific Ocean.—The Dutch tanker *Scapas* was caught in the southeastern quadrant of a cyclone not far from Lord Howe Island, a few hundred miles off the eastern coast of Australia, during the afternoon of June 5. The cyclone, which had a known violence of force 11, appeared to be moving southeastward, since the vessel in its westward voyage to Sydney, encountered on the 6th the gales belonging to the northwest quadrant.

South Atlantic Ocean.—A violent cyclone occurred off the extreme lower Brazilian and the Uruguayan coast on

June 10 to 12, as indicated by the report of the Dutch Steamer *Alchiba*. The storm was apparently moving south or southeast, and was of close to hurricane intensity.

TYPHOONS AND DEPRESSIONS

TWO TYPHOONS IN THE PHILIPPINES AT THE END OF MAY AND BEGINNING OF JUNE, 1927

By Rev. JOSÉ CORONAS, S. J.

[Weather Bureau, Manila, P. I.]

There were only two typhoons over the Philippines during the months of May and June, the rest of the two months having been remarkably calm even in the whole Far East.

Typhoon over Luzon: May 26.—This typhoon was probably formed about 600 miles to the east of San Bernardino Strait in about 12° latitude N., between 133° and 134° longitude E. It moved WNW. and reached Luzon during the night of the 25th. The center traversed Luzon rather deformed with signs of being divided into two centers when it reached the China Sea between 16° and 17° latitude N. and about 120° longitude E. The typhoon moved to the north on the 27th and 28th, and to NW. by N. on the 29th and 30th. On the 28th and 29th it moved very slowly to the west of Balintang Channel. The position of the center at 6 a. m. of the 27th to 31st was as follows:

May 27, 6 a. m., 118° 45' longitude E., 17° 15' latitude N.
 May 28, 6 a. m., 118° 50' longitude E., 19° 20' latitude N.
 May 29, 6 a. m., 118° 45' longitude E., 20° latitude N.
 May 30, 6 a. m., 118° 10' longitude E., 21° 05' latitude N.
 May 31, 6 a. m., 115° 40' longitude E., 23° 50' latitude N.

It was due to the influence of this typhoon that the interisland steamer *Negros* was wrecked on May 26 south of Luzon near to the north of Romblon with the loss of about 60 or 70 lives.

Typhoon over Batanes Islands and Formosa: June 2 and 3.—This typhoon appeared on our Weather Maps on May 26th and 27th to the south of Yap in about 138° longitude E., between 6° and 7° latitude N. The typhoon moved to WNW. and NW. on the 27th to 29th, and to NNW. on the 30th; then it inclined again to WNW. on the 31st. On June 2, when the center was over the Balintang Channel between 122° and 123° longitude E., and in about 20° latitude N., there was a new change in the direction to NNW., the center passing over the Batanes at about 10 a. m. of the 2d and over Formosa on the 3d. The barometric minimum recorded at Basco, Batanes Islands, was 729.62 mm. at 10:30 a. m. of June 2. At about noon of June 3 the typhoon recurved northeastward.

The position of the typhoon at 6 a. m. of May 31 and June 1 to 6 was as follows:

May 31, 6 a. m., 128° 40' longitude E., 16° 45' latitude N.
 June 1, 6 a. m., 125° 55' longitude E., 17° 45' latitude N.
 June 2, 6 a. m., 122° 30' longitude E., 19° 55' latitude N.
 June 3, 6 a. m., 120° 50' longitude E., 23° 30' latitude N.
 June 4, 6 a. m., 124° 50' longitude E., 27° latitude N.
 June 5, 6 a. m., 132° longitude E., 30° 25' latitude N.
 June 6, 6 a. m., 147° 50' longitude E., 34° 40' latitude N.